No. 9700299

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

DEKALB Genetics Corporation

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED, PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT RIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS DED, 7 U.S.C. 2321 ET SEQ.)

ALFALFA

'DK141'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this thirtieth day of June in the year of our Lord one thousand nine hundred and ninety-nine.

PLANT VARIETY PROTECTION OFFICE U.S. DEPARTMENT OF AGRICULTURE

Attest:

Acting Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

REPRODUCE LOCALLY. *Include form number and date on all reproductions.* FORM APPROVED - OMB NO. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE DIVISION - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a).

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) *(as it is to appear on the Certificate)*
DEKALB Genetics Corporation

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER

3. VARIETY NAME
DK141

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*
3100 Sycamore Road
DeKalb, IL 60115

6. TELEPHONE *(include area code)*
(815) 758-3461

6. FAX *(include area code)*
(815) 758-4106

FOR OFFICIAL USE ONLY

PVPO NUMBER 9700299

FILING DATE: 05/19/1997

FEES RECEIVED
FILING AND EXAMINATION FEE: $ 2450.00
DATE: 05/16/97
CERTIFICATION FEE: $ 300.00
DATE: 5/14/99

7. GENUS AND SPECIES NAME
Medicago Sativa

8. FAMILY NAME *(Botanical)*
Leguminosae

9. CROP KIND NAME *(Common name)*
Alfalfa

10. IF THE APPLICANT NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION *(corporation, partnership, association, etc.)* *(Common name)*
Corporation

11. IF INCORPORATED, GIVE STATE OF INCORPORATION
Deleware

12. DATE OF INCORPORATION
June 15, 1988

13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS

Robert Mark Lawson & Robert E. Roman, Jr.
DEKALB Genetics Corporation
3100 Sycamore Road
DeKalb, IL 60115

DEKALB Genetics Corporation
3100 Sycamore Road
DeKalb, IL 60115

14. TELEPHONE *(include area code)*
(815) 758-3461

16. FAX *(include area code)*
(815) 758-4106

16. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED *(Follow instructions on reverse)*

a. ☒ Exhibit A. Origin and Breeding History of the Variety
b. ☒ Exhibit B. Statement of Distinctness
c. ☒ Exhibit C. Objective Description of the Variety
d. ☒ Exhibit D. Additional Description of the Variety
e. ☒ Exhibit E. Statement of the Basis of the Applicant's Ownership
f. ☒ Voucher Sample *(2,500 viable untreated seeds or, for tuber propagated varieties verification that tissue culture will be deposited and maintained in a public repository)*
g. ☒ Filing and Examination Fee ($2,450), made payable to "Treasurer of the United States" *(Mail to PVPO)*

17. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY, AS A CLASS OF CERTIFIED SEED? *(See Section 83(a) of the Plant Variety Protection Act)?*
☐ YES *(If "yes," answer items 18 and 19 below)* ☒ NO *(If "no," go to item 20)*

18. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
☐ YES ☐ NO

19. IF "YES" TO ITEM 18, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?
☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

20. HAS THE VARIETY OR A HYBRID PRODUCED FROM THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES?
☒ YES *(If "yes," give names of countries and dates)* ☐ NO
February 6, 1997

21. The applicant(s) declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned applicant(s) is(are) the owner(s) of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Applicant(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF APPLICANT *(Owner(s))*		SIGNATURE OF APPLICANT *(Owner(s))*	
Robert Mark Lawson			
NAME *(Please print or type)*		NAME *(Please print or type)*	
Robert Mark Lawson			
CAPACITY OR TITLE	DATE	CAPACITY OR TITLE	DATE
Director, Research			

Exhibit A

Origin and Breeding History of DK141

DK 141 is a 135-plant synthetic variety resulting from phenotypic recurrent selection for resistance to Aphanomyces root rot (Race 2). Source material traces to two elite experimental lines developed through selection for resistance to Phytophthora root rot and Aphanomyces root rot (Race 1). Parental germplasm traces to Ovation (25%), Paramount (25%), ProCut II (25%), and Trident II (25%). The 135 parental selections were grown in an isolation cage at Bakersfield, CA. Breeder (Syn 1) seed was bulked (all seed from all plants) following cage harvest in 1994.

Type and Frequency of Variants

No variants are recognized in DK 141 beyond the limits given in Exhibit C.

Evidence of Uniformity and Stability

We have observed stability and uniformity in essential and distinguishing characteristics (e.g. disease resistance, fall dormancy, flower color) between the Syn 1 and Syn 2 generations of seed increase. DK 141 is as uniform as other alfalfa varieties previously accepted by State seed certification programs.

Exhibit B

Statement of Distinctness for DK 141

DK 141 is a semi-dormant (Group 4) and winterhardy (Group 3) variety that possesses superior disease and insect resistance and higher hay yield potential when compared to other alfalfa varieties with similar adaptation.

DK 141 is most similar to Rushmore, without qualification. Looking at overall plant color, regrowth after cutting, fall dormancy, winterhardiness, and disease and insect resistance suggests that DK 141 and Rushmore are very similar. However, there are significant differences in disease resistance and multifoliate leaf expression between these two varieties that indicate that DK 141 and Rushmore are significantly different. DK 141 is highly resistant to Race 2 Aphanomyces root rot; Rushmore is susceptible to this disease (Table 1). DK 141 is a trifoliate type with essentially no multifoliate expression; Rushmore displays strong multifoliate leaf expression (Table 2).

There are five additional varieties which are similar to DK 141: DK 133, ICI 631, Magnum IV, Pioneer 5454, and WL 323. However, distinct and significant differences exist between DK 141 and each of these five varieties.

DK 141 is similar to DK 133. However, DK 141 is highly resistant to Race 2 Aphanomyces root rot; DK 133 is susceptible to this disease (Table 1). DK 141 is also a trifoliate type with little to no multifoliate leaf expression; DK 133 displays strong multifoliate leaf expression (Table 2). DK 141 displays winter survival similar to the Group 3 check variety Dart; DK 133 displays winter survival similar to the Group 4 check variety WL 316 (Table 3).

DK 141 is also similar to ICI 631. However, DK 141 is highly resistant to Race 2 Aphanomyces root rot; ICI 631 is susceptible to this disease (Table 1). DK 141 also displays high resistance to Race 1 Aphanomyces root rot; ICI 631 only displays low resistance to this disease (Table 4). Finally, DK 141 is highly resistant to Verticillium wilt; ICI 631 is moderately resistant to this disease (Table 5).

DK 141 is also similar to Magnum IV. However, DK 141 is highly resistant to Race 2 Aphanomyces root rot; Magnum IV is susceptible to this disease (Table 1). DK 141 is also highly resistant to Race 1 Aphanomyces root rot; Magnum IV displays only moderate resistance to this disease (Table 4). Finally, DK 141 is resistant to the spotted alfalfa aphid; Magnum IV displays low resistance to this insect pest (Table 6).

DK 141 is also similar to Pioneer 5454. However, DK 141 is highly resistant to Race 2 Aphanomyces root rot, and Pioneer 5454 is susceptible to this disease (Table 2). DK 141 is also highly resistant to Race 1 Aphanomyces Root Rot, whereas Pioneer 5454 displays only moderate resistance to this disease (Table 4). Finally, DK 141 is highly resistant to Verticillium wilt, whereas Pioneer 5454 displays only moderate resistance to this disease (Table 5).

DK 141 is also similar to WL 323. However, DK 141 displays high resistance to Race 2 Aphanomyces root rot, whereas WL 323 is susceptible to this disease (Table 1). DK 141 also displays winter survival similar to the Group 3 check variety Dart, whereas WL 323 displays winter survival similar to the Group 4 check variety WL 316 (Table 3). Finally, DK 141 is resistant to the spotted alfalfa aphid, whereas WL 323 displays only moderate resistance to this insect pest (Table 6).

DK 141
Exhibit B

Table 1>Aphanomyces Root Rot (Race 2) Resistance - Evansville, WI (1997)

Entry	% Resistance	Resistance Rating	A.S.I.
DK 141	**59**	**HR**	**2.19**
H-61 (Res. Ck.)*	45	R	2.60
WL 323	3	S	4.37
Rushmore	2	S	4.46
DK 133	2	S	4.44
Magnum IV	1	S	4.60
WAPH-1 (Susc. Ck)	0	S	4.62
Pioneer 5454	0	S	4.66
ICI 631	0	S	4.67
Mean	12		4.07
LSD (.05)	9		0.27
CV %	22		4.87

* An industry "standard" resistant check for Race 2 Aphanomyces is still under development. However, the National Alfalfa Variety Review Board recognized H-61 as an accepted resistant check at their January 1997 meeting.

Data was obtained from a 4-replicate greenhouse tub test with approximately 60 seedlings/entry/replicate.

DK 141
Exhibit B

Table 2 > Multifoliate Leaf Expression

Multifoliate Leaf Expression - Evansville, WI *
Planted April 1996 Clipped Sept. 1996 Scored Oct 1996

Entry	MF Expression Index **
WL 322 HQ	0.08
DK 141	**0.10**
Legend	1.68
MultiKing I	2.69
DK 133	**3.18**
LegenDairy	3.33
Rushmore	**3.51**
Mean	2.08
LSD (.05)	0.38
CV %	6.0

* Evaluation consisted of scoring approximately 40 plants per entry per replicate (4 replicates) in a space-planted nursery.

** Scoring system used: 0 = all trifoliate leaves; 1 = 1 MF leaf/stem
2 = 2-3 MF leaves/stem; 3= 4-5 MF leaves/stem
4 = 6-7 MF leaves/stem; 5= 8+ MF leaves/stem

MF expression index is the sum of the product of the number of plants which are in each MF category over the total number of plants in the population.

DK 141
Exhibit B

Table 3 > Winter Survival - Evansville, WI
Planted 4/95 Scored 5/96

Entry	Winter Survival Rating *
Maverick (1)	1.4
Vernal (2)	2.1
Dart (3)	2.6
DK 141	**2.7**
WL 323	**3.1**
WL 316 (4)	3.2
DK 133	**3.4**
Archer (5)	3.8
Mean	2.8
LSD (.05)	0.3
CV %	8.2

* Winter survival scored 1 - no injury; 2 = some injury; 3 = significant injury; 4 = severe injury 5 = dead plant

Data collected from a space-planted nursery; approximately 40 plants per replicate; 6 replicates.

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DK 141
Exhibit B

Table 4> Aphanomyces Root Rot (Race 1) Resistance *
Evansville, WI (1996)

Entry	% Resistance	Resistance Rating	A.S.I.
DK 141	**67**	**HR**	**2.2**
WAPH-1 (Res. Ck)	50	R	2.5
Pioneer 5454	**25**	**MR**	**3.3**
Magnum IV	**19**	**MR**	**3.6**
ICI 631	**12**	**LR**	**4.0**
Agate (Susc. Ck.)	0	S	4.9
Mean	29		3.4
LSD (.05)	8		0.3
CV %	14.3		9.0

* Data obtained from a 4-replicate greenhouse tub test with approximately 60 seedlings/entry/replicate

Table 5> Verticillium Wilt Resistance *

Evansville, WI (1996)

Entry	% Resistance	Resistance Rating	A.S.I.
DK 141	**64**	**HR**	**2.29**
Oneida VR (Res Ck)	60	R	2.46
Pioneer 5454	**25**	**MR**	**3.19**
ICI 631	**17**	**MR**	**3.40**
Saranac (Susc. Ck.)	3	S	4.39
Mean	34		3.15
LSD (.05)	8		0.24
CV %	10		7.11

* Data obtained from a 4-replicate growth room cone test with approximately 75 plants/entry/replicate.

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DK 141
Exhibit B

Table 6 > Spotted Aphid Resistance *
Bakersfield, CA (1996)

Entry	% Resistance	Resistance Rating	A.S.I.
DK 141	**42**	**R**	**2.5**
Kanza (Res. Ck)	35	R	2.7
WL 323	**20**	**MR**	**3.3**
Magnum IV	**11**	**LR**	**4.3**
Caliverde (Susc. Ck.)	0	S	4.9
Mean	22		3.5
LSD (.05)	8		0.3
CV %	12		8.0

* Data obtained from a 4-replicate greenhouse flat test with approximately 75 seedlings/entry/replicate.

FORM APPROVED: OMB NO. 0581-005

EXHIBIT (Alfalfa

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
~~COMMODITIES SCIENTIFIC SUPPORT DIVISION~~
BELTSVILLE, MARYLAND 20705

OBJECTIVE DESCRIPTION OF VARIETY
ALFALFA (*Medicago sativa* sensu Gunn et al.)

NAME OF APPLICANT(S)	TEMPORARY DESIGNATION	VARIETY NAME
DeKalb Genetics Corp.		DK 141

ADDRESS (Street and No., or R.F.D. No., City, State, and Zip Code)
3100 Sycamore Road
DeKalb, IL 60115

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PVPO NUMBER 9700299

PLEASE READ ALL INSTRUCTIONS CAREFULLY: Place numbers in the boxes to designate the expressions which are characteristic of the commerical generations of the application variety. Data for quantitative plant characters should be based on a minimum of 100 plants. Include leading zeros when necessary (e.g., [0][8][9]) for quantitative data. Comparative data should be determined from varieties entered in the same trial. Plant color may be precisely designated by using any recognized color chart, e.g., The Munsell Plant Tissue Color Charts.

1. WINTERHARDINESS:

[7] CLASS:
1 = Very Non-Winterhardy (CUF 101)
2 = Non-Winterhardy (Moapa 69)
3 = Intermediately Non-Winterhardy (Mesilla)
4 = Semi-Winterhardy (Lahontan)
5 = (Du Puits)
6 = Moderately Winterhardy (Saranac)
7 = (Ranger)
8 = Winterhardy (Vernal)
9 = Extremely Winterhardy (Norseman)

TEST LOCATION: Evansville, WI

2. FALL DORMANCY:

FALL DORMANCY (DETERMINED FROM SPACED PLANTINGS)

TESTING INSTITUTION AND LOCATION	DATE OF LAST CUT	DATE REGROWTH SCORED	REGROWTH SCORE OR AVERAGE HEIGHT				LSD .05
			APPLICATION VARIETY	CHECK VARIETIES*			
				Vernal	Pio. 5246	Legend	
Evansville	9/96	10/96	5.73	3.33	4.47	6.20	0.4

* CUF 101, Moapa 69, Mesilla, Lahontan, Du Puits, Saranac, Ranger, Vernal, or Norseman as appropriate.

Specify scoring system used: Height in Inches from a replicated space-plant nursery

[5] Fall Growth Habit (Determined from Fall Dormancy Trials)
1 = Erect (CUF 101)
3 = Semierect (Mesilla)
5 = Intermediate (Saranac)
7 = Semidecumbent (Vernal)
9 = Decumbent (Norseman)

3. RECOVERY AFTER FIRST SPRING CUT (In Southwest, first cut after March 21):

[3]
1 = Very Fast (CUF 101)
3 = Fast (Saranac)
5 = Intermediate (Ranger)
7 = Slow (Vernal)
9 = Very Slow (Norseman)

TEST LOCATION: Evansville, WI

4. AREAS OF ADAPTATION IN U.S. (Where tested and proven adapted):

[2] Primary Area of Adaptation

[1][7] Other Areas of Adaptation

1 = North Central
2 = East Central
3 = Southeast
4 = Southwest
5 = Moderately Winterhardy Intermountain
6 = Winterhardy Intermountain
7 = Great Plains
8 = Other (*Specify*) _____

5. FLOWERING DATE (When 10% of plants possess open flowers at time of first spring cut):

[0][5] Days Earlier Than . . . . . [4]
Same As . . . . . [3]
[0][6] Days Later Than . . . . . [2]

1 = CUF 101
2 = Mesilla
3 = Saranac
4 = Vernal
5 = Norseman

TEST LOCATION: Warden, WA

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6. PLANT COLOR (Determined from healthy regrowth 3 weeks after first spring cut, controlling leafhoppers if necessary):

[2] 1 = Very Dark Green (524) 2 = Dark Green (Vernal) 3 = Light Green (Ranger)

COLOR CHART VALUE (Specify chart used; Munsell Color Charts, 1st Edition, 1952. Munsell Co., Balt., MD

APPLICATION VARIETY: 5/6

VERNAL: 5/6 (WL 322 HQ = 4/6, WL 252 HQ = 5/6).

TEST LOCATION: Evansville, WI; Measurements taken July 1996; leafhopper controlled with insecticide.

7. CROWN TYPE (Determined from spaced plantings):

[2] Noncreeping Types: 1 = Broad (Vernal) 2 = Intermediate (Saranac) 3 = Narrow (CUF 101)

Creeping Types: 4 = Creeping Rooted (Rangelander) 5 = Rhizomatous (Rhizoma)

8. FLOWER COLOR (Determine frequency of plants for each color class as defined by USDA Agricultural Handbook No. 424 (Barnes 1972), allowing all plants in plot to flower):

[100] % Purple and Violet (Subclasses 1.1 to 1.4)

[0] % Variegated Other Than Blue (Subclasses 2.1, 2.2, 2.5 to 2.9)

[0] % Cream (Class 3)

[0] % Blue (Subclasses 2.3 and 2.4)

[0] % Yellow (Subclasses 4.1 to 4.4)

[0] % White (Class 5)

TEST LOCATION: Warden, WA

9. POD SHAPE (Determine frequency of plants with the following pod shapes produced on well cross-pollinated racemes):

[100] % Tightly Coiled (One or more coils, center more or less closed)

[0] % Sickle (Less than 1 coil)

[0] % Loosely Coiled (One or more coils, center conspicuously open)

TEST LOCATION: Warden, WA

10. PEST RESISTANCE: Provide in the appropriate column, trial data for application variety, and resistant (R) and susceptible (S) check varieties, synthetic generation tested, average severity index scores (ASI), least significant difference statistics (LSD .05), the institution in charge of test, year, and location of test, and whether test is a field or laboratory evaluation. Describe scoring system, and any test procedure which differs from standard methods proposed by Elgin (1982). Trial data from other test years or locations should be presented whenever available on a separate document as Exhibit D.
Seeds of the check varieties and germplasm lines listed below can be obtained from the USDA Field Crops Laboratory, Bldg. 001, Rm. 335, BARC-West, Beltsville, MD 20705. Although comparisons with check varieties listed below are preferred, comparisons with any appropriate check variety recommended by Elgin (1982) may be presented.

A. DISEASE RESISTANCE: DISEASE	VARIETY	SYN. GEN. TESTED	PERCENT RESISTANT PLANTS	NUMBER OF PLANTS TESTED	ASI	ASI LSD .05	INSTITUTION, YEAR, LOCATION, FIELD OR LABORATORY
Anthracnose, Race 1 *(Colletotrichum trifolii)*	Application	1	58	186	---	% Resis.	W-L Research, Inc.
	Arc (R)		65✓	190	---	LSD (.05)	Evansville, WI (1994)
(HR)	Saranac (S)		1✓	191	---	11	
	SCORING SYSTEM: Percent resistance based on seedling survival						
Anthracnose, Race 2 *(Collectotrichum trifolii)*	Application						
	Saranac AR (R)						
	Arc (S)						
	SCORING SYSTEM:						
Bacterial Wilt *(Corynebacterium insidiosum)*	Application	1	69	169	1.54		W-L Research, Inc.
	Vernal (R)		42✓	174	2.24	0.32	Evansville, WI (1996)
(HR)	~~XXXXXXX~~ Sonora (S)		1✓	172	4.12		
	SCORING SYSTEM: Plants scored 0-5; 0 and 1 resistant and 5 = dead plant.						
Common Leafspot *(Pseudopeziza medicaginis)*	Application						
	MSA-CW3AN3 (R)						
	Ranger (S)						
	SCORING SYSTEM:						

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10. A. PEST RESISTANCE (Continued):

DISEASE	VARIETY	SYN. GEN. TESTED	PERCENT RESISTANT PLANTS	NUMBER OF PLANTS TESTED	ASI	ASI LSD .05	INSTITUTION, YEAR, LOCATION, FIELD OR LABORATORY
Downy Mildew *(Peronospora trifoliorum)*	Application						
Isolate, if known:	Saranac (R)						
	Kanza (S)						
	SCORING SYSTEM:						
Fusarium Wilt *(Fusarium oxysporum f. medicaginis)*	Application	1	63	183	2.01		W-L Research, Inc.
(HR)	~~XXXXXX~~ Agate (R)		54 ✓	180	2.23	0.45	Evansville, WI (1996)
	~~XXXXXXX~~ MnGN-1 (S)		4 ✓	180	4.71		
	SCORING SYSTEM: Plants scored 0-5; 0 and 1 resistant and 5 = dead plant.						
Phytophthora Root Rot *(Phytophthora megasperma f. medicaginis)*	Application	1	61	217	---	% Resis.	W-L Research, Inc.
(HR)	~~Agate (R)~~ Waph-1 (R)		55	224	---	LSD (.05)	Evansville, WI (1996)
	Saranac (S)		2	220	---	9	
	SCORING SYSTEM: Percent resistance based on seedling ? survival						
Verticillium Wilt *(Verticillium alboatrum)*	Application	1	70	198	2.41		W-L Research, Inc.
(HR)	~~XXXXXX~~ Oneida VR (R)		60 ✓	198	2.67	0.21	Evansville, WI (1996)
	Saranac (S)		4 ✓	206	4.47		
	SCORING SYSTEM: Plants scored 1-5; 1 and 2 resistant and 5 = dead plant.						
Other *(Specify)* Aphanomyces Root Rot	Application	1	69	220	2.39		W-L Research, Inc.
(Race 1)	(R) Waph-1		50 ✓	224	3.13	0.35	Evansville, WI (1994)
(HR)	(S) Agate		0 ✓	215	4.82		
	SCORING SYSTEM: Plants scored 1-5; 1 and 2 resistant and 5 = dead plant.						
Other *(Specify)* Aphanomyces Root Rot	Application	1	56	209	2.24		W-L Research, Inc.
(Race 2)	(R) H-61 (Ck)		45	215	2.58	0.25	Evansville, WI (1996)
(HR)	(S) Waph-1		0	213	4.36		
	SCORING SYSTEM: Plants scored 1-5; 1 and 2 resistant and 5 = dead plant						

B. INSECT RESISTANCE:

INSECT	VARIETY	SYN. GEN. TESTED	PERCENT DEFOLIATION	DEFOLIATION IN PERCENT OF RESISTANT CHECK	ASI	ASI LSD .05	INSTITUTION, YEAR, LOCATION, FIELD OR LABORATORY
Alfalfa Weevil *(Hypera postica)*	Application						
	Arc (R)			100			
	Saranac (S)						
	SCORING SYSTEM:						

10. B. INSECT RESISTANCE (Continued):

INSECT	VARIETY	SYN. GEN. TESTED	PERCENT SEEDLING SURVIVAL	NUMBER OF SEEDLINGS TESTED	ASI	ASI LSD .05	INSTITUTION, YEAR, LOCATION, FIELD OR LABORATORY
Blue Alfalfa Aphid *(Acyrthosiphon kondoi)*	Application						
	CUF 101 (R)						
	PA-1 (S)						
	SCORING SYSTEM:						
Pea Aphid *(Acyrthosiphon pisum)*	Application	1	40	283	3.5		W-L Research, Inc.
	Kanza (R)		45✓	286	3.4	0.3	Bakersfield, CA (1996
(R)	~~Ranger (S)~~ Caliverde (S)		0✓	277	4.9		
	SCORING SYSTEM: Plants scored 1-5; 1 and 2 resistant and 5 = dead plant						
Spotted Alfalfa Aphid *(Therioaphis maculata)*	Application	1	39	293	2.6		W-L Research, Inc.
Biotype, if known: (H)	Kanza (R)		35✓	284	2.8	0.3	Bakersfield, CA (1996
	~~Ranger (S)~~ Caliverde (S)		0✓	290	4.9		
(R)	SCORING SYSTEM: Plants scored 1-5; 1 and 2 resistant and 5 = dead plant						

INSECT	VARIETY	SYN. GEN. TESTED	PERCENT RESISTANT PLANTS	NUMBER OF PLANTS TESTED	ASI	ASI LSD .05	INSTITUTION, YEAR, LOCATION, FIELD OR LABORATORY
Potato Leafhopper Yellowing *(Empoasca fabae)*	Application						
	MSA-CW3An3 (R)						
	Ranger (S)						
	SCORING SYSTEM:						
Other *(Specify)*	Application						
	(R)						
	(S)						
	SCORING SYSTEM:						

C. NEMATODE RESISTANCE:

NEMATODE	VARIETY	SYN. GEN. TESTED	PERCENT RESISTANT PLANTS	NUMBER OF PLANTS TESTED	ASI	ASI LSD .05	INSTITUTION, YEAR, LOCATION, FIELD OR LABORATORY
Northern Root Knot *(Meloidogyne hapla)*	Application						
	Nev. Syn. XX (R)						
	Lahontan (S)						
	SCORING SYSTEM:						

10. C. NEMATODE RESISTANCE (Continued):

NEMATODE	VARIETY	SYN. GEN. TESTED	PERCENT RESISTANT PLANTS	NUMBER OF PLANTS TESTED	ASI	ASI LSD .05	INSTITUTION, YEAR, LOCATION, FIELD OR LABORATORY
Southern Root Knot *(Meloidogyne incognita)*	Application						
	Moapa 69 (R)						
	Lahontan (S)						
	SCORING SYSTEM:						
Stem Nematode *(Ditylenchus dipsaci)*	Application						
	Lahontan (R)						
	Ranger (S)						
	SCORING SYSTEM:						
Other *(Specify)*	Application						
	(R)						
	(S)						
	SCORING SYSTEM:						

11. INDICATE THE VARIETY THAT MOST CLOSELY RESEMBLES THE APPLICATION VARIETY FOR EACH OF THE FOLLOWING CHARACTERS:

CHARACTER	VARIETY	CHARACTER	VARIETY
Winterhardiness	Pioneer 5246	Plant Color	Rushmore
Recovery After 1st Cut	Pioneer 5454	Crown Type	Magnum IV
Area of Adaptation	Rushmore	Combined Disease Resistance	Total +Z
Flowering Date	ICI 631	Combined Insect Resistance	Pioneer 5454

REFERENCES

Barnes, D.K. 1972. A System for Visually Classifying Alfalfa Flower Color. U.S. Dep. Agric. Handb. 424. 18 pp. (Note: Greenish cast of plate 6, A and B is an artifact of printing, actual colors a blend of yellow and white.)

Elgin, J.H., Jr., (ed.). 1982. Standard Tests to Characterize Pest Resistance in Alfalfa Cultivars. U.S. Dep. Agric. Tech. Bull. (In Press).

Gunn, C.R., W.H. Skrdla, and H.C. Spencer. 1978. Classification of Medicago sativa L. using legume characters and flower colors. U.S. Dep. Agric. Tech. Bull. 1574. 84 pp.

Munsell Color Co. 1977. Munsell Plant Tissue Color Charts. Munsell Color Co., Inc. Baltimore.

NOTE: Any additional descriptive information and supporting documentation may be provided as Exhibit D.

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME
DEKALB Genetics Corporation		DK 141

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*	5. TELEPHONE *(include area code)*	6. FAX *(include area code)*
3100 Sycamore Road DeKalb, IL 60115	(815) 758-3461	(815) 758-4106
	7. PVPO NUMBER 9700299	

8. Does the applicant own all rights to the variety? *Mark an "X" in appropriate block.* If no, please explain. [X] YES [ ] NO

9. Is the applicant *(individual\or company)* a U.S. national or U.S. based company? [X] YES [ ] NO
If no, give name of country _____

10. Is the applicant the original owner? [ ] YES [X] NO ***If no, please answer the following:***

a. If original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. national(s)?

[ ] YES [ ] NO *If no, give name of country* _____

b. If original rights to variety were owned by a company, is the original owner(s) a U.S. based company?

[X] YES [ ] NO *If no, give name of country* _____

11. Additional explanation on ownership *(If needed, use reverse for extra space):*

PLEASE NOTE:

Plant variety protection can be afforded only to owners (not licensees) who meet one of the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.

2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.

3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definition.

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, D.C. 20250, or call 1-800-245-6340 (voice) or (202) 720-1127 (TDD). USDA is an equal employment opportunity employer.